

AMENDMENT TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1.- 4. (Canceled)

5. (Currently amended) A printer head comprising:

a line head; and

a plurality of head chips arranged side by side in a printing line direction, each head chip having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap ~~A printer head according to Claims 1,~~

wherein,

the landing interval between ink droplets discharged from said discharging portions including said discharging portions in said overlapping section is fixed in one of said first head chip and said second head chip[,]; and

the landing interval between ink droplets discharged from said discharging portions in said overlapping section of the other head chip is different from the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said one head chip.

6. (Currently amended) A printer head comprising:

a line head; and

a plurality of head chips arranged side by side in a printing line direction, each head chip having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap; and

the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other ~~A printer head according to Claim 1,~~

further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

7.- 9. (Canceled)

10. (Currently amended) A printer head comprising:

a line head; and

a plurality of head chips arranged side by side in a printing line direction, each head chip having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap; and

the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other, ~~A printer head according to Claim 7,~~

wherein,

the landing interval between ink droplets discharged from said discharging portions including said discharging portions in said overlapping section is fixed in one of said first head chip and said second head chip[,]; and

the landing interval between ink droplets discharged from said discharging portions in said overlapping section of the other head chip is different from the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said one head chip.

11. (Currently amended) A printer head comprising:

a line head; and

a plurality of head chips arranged side by side in a printing line direction, each head chip having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap;

the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other; and

the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other ~~A printer head according to Claim 7,~~

further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

12.- 13. (Canceled)

14. (Currently amended) A printer head comprising:
a line head; and
a plurality of head chips arranged side by side in a printing line direction, each print head
having a plurality of discharging portions aligned in the printing line direction so as to discharge
an ink droplet,
wherein,
a plurality of discharging portions of a first head chip and a second head chip placed at an
adjoining portion therebetween are placed so as to overlap;
the interval between nozzles of said discharging portions in an overlapping section of
said first head chip and the interval between nozzles of said discharging portions in an
overlapping section of said second head chip are different from each other; and
the interval between heaters of said discharging portions in said overlapping section of
said first head chip and the interval between heaters of said discharging portions in said
overlapping section of said second head chip are different from each other, A printer head
according to Claims 12,
wherein,
the landing interval between ink droplets discharged from said discharging portions
including said discharging portions in said overlapping section is fixed in one of said first head
chip and said second head chip[,]; and
the landing interval between ink droplets discharged from said discharging portions in
said overlapping section of the other head chip is different from the landing interval between ink
droplets discharged from said discharging portions in said overlapping section of said one head
chip.

15. (Currently amended) A printer head comprising:
a line head; and

a plurality of head chips arranged side by side in a printing line direction, each print head having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap;

the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other;

the interval between heaters of said discharging portions in said overlapping section of said first head chip and the interval between heaters of said discharging portions in said overlapping section of said second head chip are different from each other; and

the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other ~~A printer head according to Claim 12,~~

further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

16.-.19 (Canceled)

20. (Currently amended) A printer head comprises:

a plurality of head chips which are arranged side by side, each head chip a plurality of discharging portions aligned so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, A printer head according to Claims 16,

wherein,

the landing interval between ink droplets discharged from said discharging portions including said discharging portions in said overlapping section is fixed in one of said first head chip and said second head chip[,]; and

the landing interval between ink droplets discharged from said discharging portions in said overlapping section of the other head chip is different from the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said one head chip.

21. (Currently amended) A printer head comprises:

a plurality of head chips which are arranged side by side, each head chip having a plurality of discharging portions aligned so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap; and

the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other A printer head according to Claim 16,

further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

22. (Canceled)

23. (Currently amended) A printer comprising:
a printer head;
a line head; and
a plurality of head chips arranged side by side in a printing line direction, each head chip
having a plurality of discharging portions aligned in the printing line direction so as to discharge
an ink droplet,
wherein,
a plurality of discharging portions of a first head chip and a second head chip placed at an
adjoining portion therebetween are placed so as to overlap; and
the landing interval between ink droplets discharged from said discharging portions in an
overlapping section of said first head chip and the landing interval between ink droplets
discharged from said discharging portions in an overlapping section of said second head chip are
different from each other ~~A printer according to Claim 22,~~
further comprising:
discharging-portion information storage means for storing information about discharging
portions to be used for printing, of said plurality of discharging portions in said overlapping
sections of said first head chip and said second head chip;
discharging-portion information reading means for reading information concerning said
discharging portions to be used for printing which information is stored in said discharging-
portion information storage means; and
discharging control means for controlling the discharging of ink droplets from said
overlapping discharging portions of said printer head, based on the information read by said
discharging-portion information reading means.

24. (Canceled)

25. (Currently amended) A printer comprising:
a printer head;
a line head; and

a plurality of head chips arranged side by side in a printing line direction, each head chip having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap;

the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other; and

the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other ~~A printer according to Claim 24,~~

further comprising:

discharging-portion information storage means for storing information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip;

discharging-portion information reading means for reading information concerning said discharging portions to be used for printing which information is stored in said discharging-portion information storage means; and

discharging control means for controlling the discharging of ink droplets from said overlapping discharging portions of said printer head, based on the information read by said discharging-portion information reading means.

26. (Canceled)

27. (Currently amended) A printer comprising:

a printer head;

a line head; and

a plurality of head chips arranged side by side in a printing line direction, each head chip having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet,

wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap;

the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other;

the interval between heaters of said discharging portions in said overlapping section of said first head chip and the interval between heaters of said discharging portions in said overlapping section of said second head chip are different from each other; and

the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other ~~A printer according to Claim 26,~~

further comprising:

discharging-portion information storage means for storing information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip;

discharging-portion information reading means for reading information concerning said discharging portions to be used for printing which information is stored in said discharging-portion information storage means; and

discharging control means for controlling the discharging of ink droplets from said overlapping discharging portions of said printer head, based on the information read by said discharging-portion information reading means.

28. (Canceled)

29. (Currently amended) A printer head comprising:
a plurality of head chips which are arranged side by side, each head chip having a
plurality of discharging portions aligned so as to discharge an ink droplet,
wherein,
a plurality of discharging portions of a first head chip and a second head chip placed at an
adjoining portion therebetween are placed so as to overlap; and
the landing interval between ink droplets discharged from said discharging portions in an
overlapping section of said first head chip and the landing interval between ink droplets
discharged from said discharging portions in an overlapping section of said second head chip are
different from each other ~~A printer according to Claim 28,~~
further comprising:
discharging-portion information storage means for storing information about discharging
portions to be used for printing, of said plurality of discharging portions in said overlapping
sections of said first head chip and said second head chip;
discharging-portion information reading means for reading information concerning said
discharging portions to be used for printing which information is stored in said discharging-
portion information storage means; and
discharging control means for controlling the discharging of ink droplets from said
overlapping discharging portions of said printer head, based on the information read by said
discharging-portion information reading means.

30.-.31 (Canceled)

32. (Currently amended) A printer head comprising:

having a plurality of head chips ~~which are~~ arranged side by side, ~~and each head chip of~~
~~which has~~ having a plurality of discharging portions aligned so as to discharge an ink droplet,
wherein,

a plurality of discharging portions of a first head chip and a second head chip placed at an
adjoining portion therebetween are placed so as to overlap[.];

the landing interval between ink droplets discharged from said discharging portions in an
overlapping section of said first head chip and the landing interval between ink droplets
discharged from said discharging portions in an overlapping section of said second head chip are
different from each other[.]; and

said first head chip and said second head chip are driven so as to switch the discharging
of ink droplets from said discharging portions of said first head chip to the discharging of ink
droplets from said discharging portions of said second head chip at a position where the interval
between the landing position of an ink droplet from a specific discharging portion of said first
head chip and the landing position of an ink droplet from a specific discharging portion of said
second head chip is closest to the interval in the printing line direction between landing positions
of ink droplets from said discharging portions outside said overlapping section of said first head
chip or said second head chip,

wherein,

the landing interval between ink droplets discharged from said discharging portions
including said discharging portions in said overlapping section is fixed in one of said first head
chip and said second head chip.

33. (Currently amended) A printer-head driving method according to Claim 32,

wherein,

said first head chip and said second head chip are driven so as to switch the discharging
of ink droplets from said discharging portions of said first head chip to the discharging of ink
droplets from said discharging portions of said second head chip at a position where the interval

in the printing line direction between landing position of an ink droplet from a specific discharging portion of said first head chip and the landing position of an ink droplet from a specific discharging portion of said second head chip is closest to the interval in the printing line direction between the landing positions of ink droplets from said discharging portions outside said overlapping section of said first head chip or said second head chip when discharging of ink droplets is shifted by at least one discharging portion in said discharging portions in said overlapping section of one of said first head chip and said second head chip[.]; and

so as to shift discharging data on ink droplets from said discharging portions in said overlapping section of one of said first head chip and said second head chip by at least one discharging portion.